REMARKS

The Office Action mailed March 7, 2005 has been carefully reviewed and the foregoing amendment and following remarks are made in consequence thereof.

Claims 1-20 are now pending in this application. Claims 1-20 stand rejected. Claims 1 and 9 have been amended. No new matter has been added.

The rejection of Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over Papadopoulos et al. (U.S. Pat. No. 6,282,454) in view of Worley et al. (U.S. Pat. No. 6,651,190) is respectfully traversed.

Papadopoulos et al. describe a web server (30) that provides a direct connection for a programmable logic controller (PLC) (32) to the Internet (14) by plugging the web server into a back plane (34) of the PLC (column 4, lines 20-24). The web server provides both a client and server interface (column 4, lines 24-25). All signals between the PLC and the web server are through the back plane rather than over a set of cables which would normally have to be coupled to input/output modules that are themselves plugged into the back plane (column 4, lines 25-29).

Worley et al. describe an organization of communication links from a remote computer station to a remote maintenance controller (100) (column 7, lines 27-30). Specifically, a monitored host computer (110) contains the remote maintenance controller (column 7, lines 30-31). The remote maintenance controller contains a wireless connection (102) that connects to a wireless Internet Service Provider (120) (ISP) or a conventional cell phone provider (column 7, lines 31-35). The wireless connection to the Internet allows access to the remote maintenance controller from anywhere a remote technician has Internet or standard modem access (column 7, lines 35-38). One example is a remote computer station (130) which connects to the Internet through a conventional modem (134) (column 7, lines 38-39). Of course, in this scenario, any remote connection to the Internet would suffice (column 7, lines 40-41). A second example is a remote computer station (132) which dials into the ISP using a wireless connection or standard modem and performs a service required

for the host computer (column 7, lines 41-46). A remote technician can then perform diagnostic services anywhere a wireless connection is available (column 7, lines 44-46). The remote technician can dial directly into the remote maintenance controller using a direct cell connection (140) or a direct land line to a cell wireless modem connection (column 7, lines 46-49). It should be apparent that the remote technician could connect to the Internet using any other type of land based connection, such as, for example, ISDN, a T1 or DSL, and then access the remote maintenance controller (column 7, lines 49-52).

Claim 1 recites a method for controlling and monitoring an industrial controller using a portable wireless device, utilizing a system including a programmable logic controller (PLC), a local server, and a wireless Internet Service Provider (ISP), the method comprising the steps of "monitoring and controlling a system using a programmable logic controller (PLC); exchanging communications between the PLC and a local server; exchanging communications between the local server and a wireless Internet Service Provider (ISP) server utilizing the Internet; configuring the local server to communicate with the PLC via a local area network and to convert an Internet protocol into a protocol compatible with the PLC; transmitting, via the wireless ISP server, commands from a wireless user communication device to the PLC, wherein the PLC is configured to determine whether to energize an output module based on a state of an input module; displaying information retrieved from the PLC using the wireless ISP server; and controlling said PLC, via said wireless ISP server, by formatting, in a wireless markup language, responses to the commands."

Neither Papadopoulos et al. nor Worley et al., considered alone or in combination, describe or suggest a method for controlling and monitoring an industrial controller using a portable wireless device as recited in Claim 1. Specifically, neither Papadopoulos et al. nor Worley et al., considered alone or in combination, describe or suggest configuring the local server to communicate with the PLC via a local area network and to convert an Internet protocol into a protocol compatible with the PLC. Papadopoulos et al. describe a web server that provides a direct connection for a PLC to the Internet by plugging the web server into a

back plane of the PLC. Both the PLC and the web server share the same backplane. Signals between the PLC and the web server are through the back plane rather than over a set of cables which would normally have to be coupled to input/output modules that are plugged into the back plane. Accordingly, Papadopoulos et al. describe a web server coupled to a PLC via a backplane. Worley et al. describe a wireless Internet Service Provider connected via a wireless connection to a remote maintenance controller. The remote maintenance controller can be accessed using a direct cell connection or a direct land line coupled to a cell wireless modem connection. The remote maintenance controller can be accessed after a remote technician connects to the Internet using any type of land based connection, such as, for example, ISDN, a T1 or DSL. Accordingly, Worley et al. describe a wireless ISP connected wirelessly to a remote maintenance controller. No combination of Papadopoulos et al. and Worley et al. describes or suggests configuring the local server to communicate with the PLC via a local area network as recited in Claim 1. For at least the reasons set forth above, Claim 1 is patentable over Papadopoulos et al. in view of Worley et al..

Claims 2-8, 19 and 20 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-8, 19 and 20 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-8, 19 and 20 likewise are patentable over Papadopoulos et al. in view of Worley et al.

Claim 9 recites a system for controlling and monitoring an industrial controller using a wireless device, the system comprising "a programmable logic controller (PLC); a local server configured to exchange communication with said PLC; a wireless Internet Service Provider (ISP) server configured to exchange communication with said local server using the Internet, said local server implemented within a single device physically separate from said PLC, coupled to said PLC via a local area network, and configured to convert an Internet protocol into a protocol compatible with said PLC, and said wireless ISP server configured to control said PLC by formatting, in a wireless markup language, a set of responses to a set of commands; and a wireless user communication device configured to exchange communication with said wireless ISP server, wherein said PLC configured to exchange communication via said wireless ISP server with said wireless user communication device

and configured to determine whether to energize an output module based on a state of an input module."

Neither Papadopoulos et al. nor Worley et al., considered alone or in combination, describe or suggest a system for controlling and monitoring an industrial controller using a wireless device as recited in Claim 9. Specifically, neither Papadopoulos et al. nor Worley et al., considered alone or in combination, describe or suggest a wireless Internet Service Provider (ISP) server configured to exchange communication with the local server using the Internet, the local server implemented within a single device physically separate from the PLC, coupled to the PLC via a local area network, and configured to convert an Internet protocol into a protocol compatible with the PLC. Papadopoulos et al. describe a web server that provides a direct connection for a PLC to the Internet by plugging the web server into a back plane of the PLC. Both the PLC and the web server share the same backplane. Signals between the PLC and the web server are through the back plane rather than over a set of cables which would normally have to be coupled to input/output modules that are plugged into the back plane. Accordingly, Papadopoulos et al. describe a web server coupled to a PLC via a backplane. Worley et al. describe a wireless Internet Service Provider connected via a wireless connection to a remote maintenance controller. The remote maintenance controller can be accessed using a direct cell connection or a direct land line coupled to a cell wireless modem connection. The remote maintenance controller can be accessed after a remote technician connects to the Internet using any type of land based connection, such as, for example, ISDN, a T1 or DSL. Accordingly, Worley et al. describe a wireless ISP connected wirelessly to a remote maintenance controller. No combination of Papadopoulos et al. and Worley et al. describes or suggests the local server implemented within a single device physically separate from the PLC, coupled to the PLC via a local area network, and configured to convert an Internet protocol into a protocol compatible with the PLC. For at least the reasons set forth above, Claim 9 is patentable over Papadopoulos et al. in view of Worley et al.

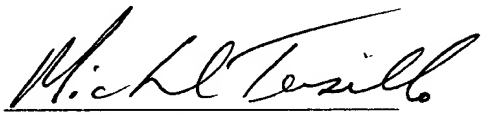
Claims 10-18 depend from independent Claim 9. When the recitations of Claims 10-18 are considered in combination with the recitations of Claim 9, Applicant submits that

dependent Claims 10-18 likewise are patentable over Papadopoulos et al. in view of Worley et al..

For at least the reasons set forth above, Applicants respectfully request that the rejection of Claims 1-20 under 35 U.S.C. 103(a) be withdrawn.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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